

REMARKS

The examiner has rejected claim 30 as lacking support in the specification as originally filed. Applicant has amended claim 30 to remove this rejection.

Applicant has also amended claim 32 to include the features of claim 35.

The examiner has rejected all the claims on the ground of obviousness over Redhead et al in view of Middlin et al.

Redhead et al is concerned with a method for cleaning relatively loosely adhering deposits or layers from electrodes in a zinc electrowinning process. Redhead et al teaches that these relatively loosely adhering deposits or layers can be efficiently removed by use of a power driven rotating member to which is attached a plurality of radially projecting flexible fingers. See column 4, lines 35-39. Redhead et al acknowledges that the mechanism by which the fingers are so effective is not understood (column 4, lines 65-66). Middlin et al, on the other hand, is concerned with a method of stripping electrolytically deposited copper from a cathode. It is well-known that the copper deposit adheres strongly to the cathode, and Middlin et al teaches that the copper deposit may be separated from the cathode sheet by flexing the cathode.

The examiner asserts that it would have been obvious in view of Middlin et al to modify the apparatus disclosed by Redhead et al. Specifically, the examiner suggests that it would have been obvious to modify the apparatus of Redhead et al by providing upper and lower reaction bars 6, 7 and 8, 9, as disclosed by Middlin et al, whereby cooperation of the rotatable member 10 of Redhead et al, provided with flexible fingers 18, and the reaction bars would cause bending of the electrode 14.

Although both Redhead et al and Middlin et al are concerned with removing material from electrodes employed in an electrolytic process, the specific applications of Redhead et al and Middlin et al are quite different. In the case of Redhead et al, the deposits are non-cohesive and adhere only loosely to the

electrode, and are removed by flexible fingers that scrape the deposit from the electrode. As described at column 7, lines 20-32 and shown in FIG. 5, the fingers dig into the layer 20 causing a buildup of material in front of the fingers. As the finger moves further, the buildup breaks away from the other material of the deposit, leaving a clean surface 28. Thus, the flexible fingers remove the deposit by breaking the deposit up into relatively small portions that separate from the remainder of the deposit. Middlin et al, on the other hand, is concerned with removing a cohesive sheet of copper that adheres firmly to the cathode sheet. Applicant submits that because the deposit of Redhead et al is relatively loose and non-cohesive, bending of the electrode would not effect separation of the deposit from the electrode. Therefore, a person of ordinary skill in the art would see no advantage to employing a mechanism for bending the electrode in the apparatus of Redhead et al.

The examiner has also rejected all the claims on the ground of obviousness over CA-910 in view of Middlin et al.

CA-910 discloses that scale may be removed from an anode by use of a skeleton drum mechanism including rollers that impinge on the scale. The prior art discussed in CA-910 at page 3, lines 23-37 includes use of flexible fingers as disclosed by Redhead et al. Thus, like Redhead et al, CA-910 is concerned with apparatus for cleaning a non-cohesive, relatively loosely adhering deposit from an electrode. Therefore, for similar reasons to those discussed above in connection with the rejection over Redhead et al in view of Middlin et al, applicant submits that bending of the anode shown by CA-910 would not effect separation of the scale from the anode and therefore a person of ordinary skill in the art would see no advantage to employing a mechanism for bending the electrode in the apparatus disclosed by CA-910.

In view of the foregoing, applicant submits that the subject matter of claims 23 and 32 is not disclosed or suggested by Redhead et al, Middlin et al and CA-910, whether taken singly or

in combination. Therefore, claims 23 and 32 are patentable and it follows that the dependent claims also are patentable.

Claim 32 has been amended and now recites that the deposit is metal on a surface of a cathode. Since neither Redhead et al nor CA-910 is concerned with removing a metal deposit from a cathode, applicant submits that claim 32 is patentable independently of claim 23.

Respectfully submitted,

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